

# PATENT COOPERATION TREATY

Rec'd PCT/PTG 25 JAN 2005

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From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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CANADA

**PCT**

✓ DOCKETED *dfw*  
*Oct-18, 2004* WRITTEN OPINION  
*Reply Due -* (PCT Rule 66)

Date of mailing  
(day/month/year) 03.09.2004

Applicant's or agent's file reference  
V80029WO

**REPLY DUE within 1 month(s) and 15 days**  
from the above date of mailing

International application No. PCT/CA 03/01118	International filing date (day/month/year) 24.07.2003	Priority date (day/month/year) 25.07.2002
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International Patent Classification (IPC) or both national classification and IPC  
H01M8/00

Applicant  
ALBERTA RESEARCH COUNCIL INC. et al.

1. This written opinion is the first drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
  - I ☒ Basis of the opinion
  - II ☐ Priority
  - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - IV ☒ Lack of unity of invention
  - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI ☐ Certain documents cited
  - VII ☐ Certain defects in the international application
  - VIII ☐ Certain observations on the international application
3. The applicant is hereby invited to reply to this opinion.
 


When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension. see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments. according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also: For an additional opportunity to submit amendments, see Rule 66.4  
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.  
For an informal communication with the examiner, see Rule 66.5.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 25.11.2004

Name and mailing address of the international preliminary examining authority:

 European Patent Office  
D-80298 Munich  
Tel. +49 89 2399 - 0 Tx: 523656 epmu d  
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Authorized Officer  
Schwallier, J-M

Formalities officer (incl. extension of time limits)  
Almalé Murillo, J-A  
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**I. Basis of the opinion**

1. With regard to the elements of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

**Description, Pages**

1-19 as originally filed

**Claims, Numbers**

1-36 as originally filed

**Drawings, Sheets**

1/7-7/7 as originally filed

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
  - ☐ the language of publication of the international application (under Rule 48.3(b)).
  - ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).
3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:
- ☐ contained in the international application in written form.
  - ☐ filed together with the international application in computer readable form.
  - ☐ furnished subsequently to this Authority in written form.
  - ☐ furnished subsequently to this Authority in computer readable form.
  - ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
  - ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.
4. The amendments have resulted in the cancellation of:
- ☐ the description, pages:
  - ☐ the claims, Nos.:
  - ☐ the drawings, sheets:
5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).
6. Additional observations, if necessary:

**IV. Lack of unity of invention**

1. In response to the invitation (Form PCT/IPEA/405) to restrict or pay additional fees, the applicant has:

- ☐ restricted the claims.
- ☒ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with for the following reasons and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees:

3. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this opinion:

- ☒ all parts.
- ☐ the parts relating to claims Nos. .

**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1,13,17,24: No
Inventive step (IS)	Claims	1,13,17,24: No
Industrial applicability (IA)	Claims	1-36: Yes

2. Citations and explanations

**see separate sheet**

Accordingly, the subject-matter of present claims 1, 13 and 17 also **not involves an inventive step** under Article 33(3) PCT.

Second invention

2.3 **D3** (claims 17 and 18) discloses a method of manufacturing a tubular solid oxide fuel cell according to at least the subject-matter of present claim 24, which therefore also not meets the requirements of Article 33(1) and (2) PCT.

3. It is not at present apparent which part of the application could serve as a basis for a new, allowable claim. Should the applicant nevertheless regard some particular matter as meeting the requirements of Article 33 PCT (an) independent claim(s) including such matter should be filed.

The applicant should indicate in the letter of reply the difference of the subject-matter of the new claim(s) vis-a-vis the state of the art cited in the present opinion in order to establish **novelty** and the significance thereof in terms of **inventive step** using preferably the problem-solution approach.

4. Although the documents **WO 03/069705** and **WO 03/062503**, cited in the International search Report, do not constitute prior art for the purposes of Article 33(2) and (3) PCT, their content is of particular relevance (see in particular the passages cited in the search report) and may be opposed under **novelty** to the subject-matter claimed in the present international application in its regional (or national) phases.

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:  
D1: WO-A-0109968  
D2: US-A-6080501  
D3: WO-A-0186030
2. The examiner charged with the International Preliminary Examination concurs with the opinion established in the international search report that the documents D1-D3 are of particular relevance in the following respects:

First invention

- 2.1 Document D1 (see the relevant passages indicated in the search report) **anticipates in terms of novelty** the subject-matter of at least independent claims 1, 13 and 17. These claims thus do not met the requirements of Article 33(1) and (2) PCT.
- 2.2 D3 (cf. in particular page 16, lines 14-37) discloses a tubular solid oxide fuel cell assembly and its preparation **from which the subject-matter of claims 1, 13 and 17 differ** in that the functional layer is deposited onto a substantially metallic porous layer.

The problem to be solved by the present invention (see in this respect the description at page 2, lines 21-25) may therefore be regarded as providing higher mechanical strength to such an assembly.

The solution proposed in claims 1, 13 and 17 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) because this distinguishing feature is described in document D2 (column 2, line 61-column 3, line 23) as providing the same advantages as in the present application. The skilled person would therefore regard it as a normal design option to include this feature in the device described in document D3 in order to solve the problem posed.